

# **Burnt Corral Vegetation Management Project**

## **Socio-Economics & Environmental Justice Write-up**

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Kaibab National Forest – North Kaibab Ranger District

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## **Introduction / Issues Addressed**

This write-up describes the evidence and rationales why, in this case, additional analysis of this proposal's effects on "social-economic" factors or the potential thereto is not warranted under the National Environmental Policy Act (NEPA) analysis for the Burnt Corral Vegetation Management Project; however, the write-up is provided in response to any possible socio-economic or environmental justice comments, and as a topic of public interest. Under NEPA an issue is a statement of cause and effect linking environmental effects to actions (Forest Service Handbook 1909.15, 2012).

## **Background**

The economy in the area of rural northern Arizona and southern Utah has traditionally been rooted in extractive uses such as ranching (grazing), timber, and some mining. Over the past 25 years, there has been a shift towards non-extractive recreation-based uses (i.e., tourism related to nearby national parks and monuments, and camping and recreating on National Forest and surrounding public lands). Between 1990 and 2000, the Forest had a drastic decrease in saw timber, pulpwood, and commercial fuelwood permits; the local sawmill in Fredonia, Arizona (then owned by Kaibab Industries) shut-down and sold off its equipment. During that same time period, mining activity in the area (on adjacent BLM managed lands) also diminished or shut down. This shift or downturn resulted in the loss of jobs and economic hardship to some individuals and services in the community.

The main employers within the Fredonia and Kanab area are government jobs (federal, state and county), medical services (hospital and clinic) and the Best Friends Animal sanctuary. Federal government jobs include the Forest Service, BLM and NRCS. State government jobs include school districts, department of transportation offices, and other state services. Local government includes any county or city/town employment. Most all of these types of jobs are full-time and come with benefits. These government jobs are usually the higher paying jobs within these communities, versus the tourist or service industry jobs which are seasonal, part-time, and have few work related benefits.

Growth in recreation-related industries has helped somewhat in offsetting this economic impact or downturn. However, most all jobs related to the recreation or tourism industry in the area are part-time and seasonal in nature, meaning that employment is two-to-three times higher during the tourist season (April through November), than during the off-season (December through March). As a result of this seasonal downturn, some hotels, restaurants, RV parks, and tourist based businesses also shut down for the winter season. Regarding employment by the two local lumber or wood product mills (one in Fredonia, Arizona and one in Panguitch, Utah), these businesses employ approximately 40 full-time employees all year and usually offer a higher hourly rate than the service based industry businesses (i.e., the motels, restaurants, and recreational tour companies).

For the Burnt Corral project an economics summary profile report was generated utilizing headwater Economics' Economics Profile System (EPS) for the three local counties in this area (Coconino and Mohave Counties, Arizona, and Kane County, Utah). Some of the data may be skewed, due to the fact that the majority of populations in both Coconino and Mohave counties

are located south of the Grand Canyon (these counties are the largest counties in Arizona – see figure 1). The potential for impacts to the local area would be the area known as the Arizona Strip, which is north of the Grand Canyon and south of the Utah boarder; Fredonia and Colorado City are the only two local communities in Arizona in that area. Page is some 60 miles to the east. Kane County Utah is situated along the Arizona boarder and is approximately 4,000 square miles and has a population just over 7,000 (see Figure 2).



Figure 1 – Map of Arizona Counties

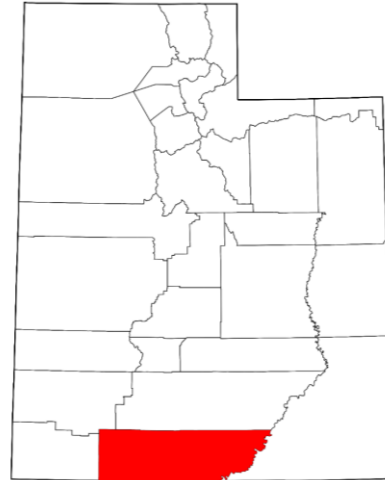


Figure 2 – Map of Kane County, Utah

According to the Headwaters Economics EPS Summary Profile (Headwaters Economics, 2019), population trends from 1970 to 2017 have risen approximately 356% for the county region made up of the three counties (i.e., Kane, Coconino, and Mohave). The average earnings per job is approximately \$45 to \$46 thousand per year. Within this area the economy is approximately 69% service industry regarding employment, and 17 % regarding government workers (federal, state, and local). Timber, mining, and agriculture combined, make up less than 3% of the employment in the three county area combined. Yet travel and tourism makes up some 30% of all employment in the area.

Federal land is approximately 56% of the total area (Coconino = 39%; Mohave = 70%, and Kane = 85%). Forest service lands make up approximately 15% of the total federal land. Average annual income for the three counties combined is approximately \$45,660, and per capita income is approximately \$38,000. The United States average incomes (for comparison) are \$62,100 and \$52,880 respectively.

Mohave County has the largest percentage of non-labor income (> 53%), due to the number of retired people living in Arizona cities like Bullhead City and Kingman; it also had the largest percentage of service related jobs (75%). Both Coconino and Kane counties have agricultural related jobs (2.6% and 3.7% respectively); cattle, alfalfa, and grass/hay production account for the majority of these activities.

## **Recent Agreements or Understanding between Federal and State**

In December of 2018 the U.S. Department of Agriculture (USDA) signed a Memorandum of Understanding (MOU) with the Western Governors' Association (WGA). The MOU contains the following statement of mutual benefit and interest: "The Forest Service and WGA seek to proactively carry out projects to reduce hazardous fuels and improve forest and rangeland conditions in western states. To achieve landscapes that are more resilient to fire and other disturbances, the Forest Service and WGA will take a more integrated approach to prioritizing investments where they will have the greatest impact, and will work together to set priorities that address risk across broad landscapes." (WGA-USDA 2018).

## **Environmental Consequences**

Socio-Economic impacts from the proposed Burnt Corral Vegetation Management Project would be from fire (Rx Fire or managed wildfire), timber harvesting activities, transportation and mill processing activities, and distribution activities of final mill products. Some activities may be related to the processing and transport of lumber or mill products, which would not happen under the no action alternative. Consideration should be given to the fact that if no commercial thinning is completed, the possibility of a catastrophic wildfire occurring within the Burnt Corral project area is more likely to happen under the no action alternative than the proposed action alternative. This could potentially create a negative social and economic impact to the area by deterring recreation use of the burn areas and through the post-fire rehabilitation activities. Additionally, there would be a loss of value of the natural resources such as the Ponderosa pine vegetation type.

## **No Action Alternative**

### **Direct, Indirect and Cumulative Effects**

Under the no-action alternative, there would be no thinning or prescribed burning. As a result, there would be no income generated from commercially-sized wood to offset costs incurred from implementing non-commercial thinning and prescribed burning. The project area would remain at risk for a high intensity stand-replacing fire like the Warm Fire. High-intensity stand-replacing wildfires incur costs associated with suppression, post fire rehabilitation, and reforestation. The economic cost for suppressing such a fire runs high, usually at \$1,000 to \$2,500 per acre, posing a potential cost of \$20 to \$30 million for the project area (if such a high intensity wildfire were to occur within the Burnt Corral project area).

Post-fire rehabilitation, including emergency soil stabilization, seeding, and replanting, have high per-acre costs. Stand-replacing wildfires also cause losses to Forest resources (soils, timber, range permit fees), which can have economic effects in the form lost commercial related revenues, or from the reduction in tourism dollars, if available forested area used for camping and recreating is diminished. The no-action alternative would not meet the intent of the Forest Plan and moving forested areas of Ponderosa pine towards desired conditions; conditions or metrics, such as basal area, and stand density would continue to increase, as well as the risk of a catastrophic wildfire or deteriorating conditions such a beetle infested areas.

There would be no cumulative effects from selecting the no action alternative.

## **Proposed Action Alternative**

### **Direct and Indirect Effects**

The Proposed Action would generate commercial timber, and the value of this timber may be sold or traded as “goods for services” or in a stewardship contract. Receipts from timber sales would help offset the cost associated with implementation of any noncommercial thinning and prescribed burns. Due to fluctuations in timber prices, it is difficult to project the discrete economic effects of the proposed action. Further, the current limited existence of operating mills near the project area makes it problematic to identify the specific locations where economic effects would be felt the strongest. There is currently one small mill (employing approximately 30 to 35 personnel) in operation in Fredonia, Arizona, and several others within a 200-mile radius of the project area.

Despite the challenge in identifying the specific quantity and location where social or economic effects would be felt the strongest, it is clear that a project of this size and limited duration (i.e. up to 15 years) would have considerable direct, indirect, and induced effects on the local economy (i.e., Fredonia, Arizona, and possibly Kanab or Panguitch, Utah). Direct effects are the responses of an industry to demand for goods or services. Indirect effects are produced when a sector must purchase supplies and services from other industries in order to produce output sufficient to meet demand. The employment and labor income generated in other industries as a result of implementation of the Proposed Action are referred to as indirect effects. Induced effects represent the employment and labor income stimulated throughout the local economy as a result of the expenditure of new household income generated by direct and indirect employment. Induced effects often are felt multiple times over as revenues are spent and re-spent in different sectors of the economy. For instance, going to the local clinic to see a doctor and paying a doctor or clinic bill; or purchase of local goods and services in the area where the employees reside, when working for the timber company involved in the BC area thinning. Project timeline estimates to complete the project are between 10 to 15 years.

There would be about 5,000 board feet per acre of log volume directly produced from tree harvest. The sale of commercial timber would provide revenues to the Forest and help offset costs of timber stand improvement work, prescribed burning, and managed wildfires (Domis 2019, pg. 32). Non-commercial thinning and prescribed burning have costs associated with implementation, but much of the costs are in the form of wages, which would result in beneficial indirect and induced effects. Indirect and induced economic effects would also result from the sale of merchantable timber and processing of wood products. Wood processed at other locations other than Fredonia, Arizona could contribute to stimulation of the local economy through purchases such as fuel, food, electricity, and supplies needed to transport and process the wood.

### **Cumulative Effects**

The analysis area considered for economic effects is for Kane County, Utah and Coconino County, Arizona, although the effects could reach into Washington and Garfield Counties in Utah, and Mohave County, Arizona as well. Tourism, recreation, and service industries tied to tourism, are the main industries within the immediate analysis area and have been expanded over the last 15 years, which may help offset any decline in the wood products industry. The

timeframe for potential economic benefit to these communities by implementing the Proposed Action is 10 to 15 years. Economic benefits reach beyond the salaries for those working the project, but also provide monetary infusions to the community in the form of rents, supplies (food/fuel) and related services. The Burnt Corral Project would provide an economic benefit to the communities; however the effect would likely be small as the total contribution of Kaibab National Forest activities are estimated to be responsible for only about 0.5 percent of the jobs and labor income within the regional economy (USDA Forest Service, 2008). The economic effects of implementing the Burnt Corral Project would inject needed workforce funding into the local economies, and when added to other current and foreseeable future projects, would create a net beneficial effect to local county economies for years.

## **Consistency with Relevant Laws, Regulations, and Policy**

### **Regulatory Direction**

Executive Order 12898 (February, 1994) “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” (EO 12898) directs each Federal Agency to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations,” including tribal populations.

The Presidential Memorandum accompanying EO 12898 emphasizes the importance of using the NEPA review processes to promote environmental justice. It directs Federal agencies to analyze the environmental effects, including human health, economic, and social effects, of their proposed actions on minority and low-income communities when required by NEPA. The Memorandum calls for agencies to address significant adverse environmental effects on these communities in mitigation measures outlined or analyzed in Environmental assessments (EAs) and Findings of no significant impact (FONSI)s).

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### **Land and Resource Management Plan**

Forestry and Forest Products Desired Conditions (Forest Plan, pgs. 70 & 144): A sustainable supply of wood is available to support a wood harvesting and utilization industry of a size and diversity that can effectively and efficiently restore and maintain the desired conditions for ponderosa pine and frequent fire mixed conifer communities.



Regular fire entry protects social, economic, and ecological values at risk from high-severity disturbance effects (Forest Plan, pg. 73).

Timber Suitability (Forest plan, pg. 109): The NFMA requires that NFS lands be classified as to their suitability for timber production. NFS lands were reserved with the intent of providing goods and services to satisfy public needs over the long term. These goods include the production of a sustainable supply of forest products. Timber production is the purposeful growing, tending, harvesting, and regeneration of regulated crops of trees for industrial or consumer use. Timber production activities can contribute to social, economic, or ecological sustainability. Timber production has the potential to offset some or all of the costs of thinning and other forest development or maintenance activities that lower uncharacteristic fire and insect risk, increase understory plant diversity and abundance, and create employment opportunities.

Forest Service Handbook: FSH 1909.12 (32.13) (f) Monitor progress toward meeting desired conditions, objectives, or other plan components, including those for providing multiple-use management opportunities is to cover matters not specifically listed in Planning Rule at 36 CFR 219.12(a)(5). To carry out this intent, the plan monitoring program must contain one or more questions and associated indicators addressing the plan contributions to communities, social and economic sustainability of communities, multiple use management in the plan area, or progress toward meeting the desired conditions and objectives related to social and economic sustainability.

External data may be best available information for monitoring of social and economic sustainability. Such external data is available using the Economic Profile system and other systems available on the TIPS website at <http://www.fs.fed.us/emc/nfma/TIPS/index.shtml>. Headwater Economics (<https://headwaterseconomics.org/tools/economic-profile-system/about/>) is one website where you can download socioeconomic reports of communities, counties, & states, including aggregations and comparisons. The Economic Profile System (EPS) uses federal data sources, including the Bureaus of Economic Analysis, Census, & others. EPS is also known as the Human Dimensions Toolkit by the Forest Service (Headwaters Economics. 2019).

Forest Service Manual: FSM 1921.12(a) Timber Management Requirements; Under 16 U.S.C. 1604 (g)(3)(E), a Responsible Official may authorize site-specific projects and activities on NFS lands to harvest timber only where:

- The interdisciplinary review has been completed and the potential environmental, biological, aesthetic, engineering, and economic impacts have been assessed on each advertised sale area and the cutting methods are consistent with the multiple use of the general area (16 U.S.C. 1604 (g)(3)(F)(i)).

## Environmental Justice

In accordance with the NEPA the local (Fredonia, Arizona) and other surrounding communities were assessed to contain both minority and low-income populations. However, the potential for any impact resulting from implementation of the proposed action or preferred alternative would be too minor to merit consideration, and would not be disproportionately high with regard to human health or environmental impacts on minorities or low-income populations. Besides

immediate work areas where timber harvesting and prescription fires are occurring, the North Kaibab Ranger District would remain available for use by all people regardless of race or income, or other socio-economic status or traits. Under the NEPA process, the project planning team actively solicited public participation as part of the planning process and gave equal consideration to all input from persons regardless of age, race, income status, or other socioeconomic or demographic factors.

**EPA's NEPAAssit:** Utilizing the Environmental Protection Agencies (EPA's) NEPAAssist website (see references), an environmental review process was conducted; the web-based application draws environmental data dynamically from EPA Geographic Information System (GIS) databases and web services and provides immediate screening of environmental assessment indicators for the planning area (i.e., Burnt Corral Vegetation Management project). The web-based exercise revealed no potential important environmental issues as they relate to Environmental Justice as related to surrounding communities (i.e., Fredonia, Arizona; Page, Arizona; Kanab, Utah, Tuba City, Arizona, and other small communities in the area). The features in NEPAAssist contribute to a streamlined review process that potentially raises important environmental issues at the earliest stages of project development.

## Conclusion Section

Economic, Socio-Economics, and Environmental Justice issues are not discussed as part of the Forest Plan. These issues are evaluated either initially during the planning phase or considered as part of the on-going day-to-day business that the Forest Service conducts, when interacting and planning land management projects, such as Burnt Corral.

Recreationists engage in a variety of activities such as hiking, camping, sightseeing, and driving/riding for pleasure. Tourism has played an increased role over the last 20 years. The proximity of the North Kaibab Ranger District of the KNF to the North Rim of the Grand Canyon National Park and other national parks and monuments located to the north (i.e., Zion and Bryce Canyon, and Vermillion Cliffs and Grand Staircase respectively) attracts visitors from across the Nation and throughout the world. Tourism-related activities contribute to local economic development and opportunities. Many area residents have jobs or businesses dependent on forest resources such as grazing, wood harvesting, tourism, and outfitter-guiding.

Harvesting the timber within the Burnt Corral project area is not selected as a primary reason for benefit because it would give the greatest dollar return or the greatest unit output of timber. While economics and outputs may be considered in the decision process, other factors related to reducing the impacts of wildfire, insects and diseases, and protection of resources within the project area as described in the environmental assessment are the primary focus to determine the best action to implement.

The Burnt Corral project is an example of a project which can reduce hazardous fuel conditions while improving forest conditions. In accordance with the MOU between the USDA and WGA the NKRDC collaborated with the Arizona Game and Fish Department in the development of the Proposed Action for the Burnt Corral Project. Future cost-sharing of projects related to wildlife habitat improvement is a possibility for some areas within the Burnt Corral footprint.

The Burnt Corral Project would have a net positive effect regarding employment and economic boost to the area, as would contribute to the 40 local jobs in the timber or wood products industry. The local mills located in Panguitch, Utah and Fredonia, Arizona, both depend upon the Kaibab National Forest - NKRD and the Dixie National Forest in Utah, for a supply of timber for their mills. Raw timber that may be available from other forests or projects which are nearby are not economically feasible to bid on and contract timber removal because of the high transportation costs associated with traveling long distances to bring the timber back to the mill for processing. Without projects that have a commercial timber component to them, such as Burnt Corral, the local mills would most likely shut down or drastically scale back production, which would mean less opportunity for the full-time year-round employment for the local population residing in the area.

The Burnt Corral Project aligns with the Forest Service FY 2015-2020 Strategic Plan (USDA Forest Service 2015), which states the following: “America’s forests and grasslands play pivotal roles in providing a wide range of benefits to the American people. Land management that is sustainable enables forests and grasslands to continue producing goods and services to meet multiple public demands, thereby contributing to human health, prosperity, and quality of life for local communities and for the Nation as a whole.”

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